

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (previously presented) A tuning arrangement for receiving a plurality of signal channels and for tuning to a specific of said plurality of signal channels, the arrangement comprising:

a polyphase mixer for mixing said specific signal channel to an intermediate frequency which is lower than twice the bandwidth of the channel;

a polyphase IF filter for rejecting the negative frequencies in the mixer output signal; and

a polyphase group delay equalizer connected to the output of the polyphase IF filter;

wherein the transfer function of the polyphase group delay equalizer has, for the frequency range of interest, one or more pole-zero pairs alongside of only the positive imaginary axis of the complex frequency plane with the pole(s) and the zero(s) of said one or more pairs lying substantially symmetrically with respect to said positive imaginary axis, wherein the one or more pole-zero pairs are shifted along the positive imaginary axis off of the real axis of the complex frequency plane.

2. (previously presented) A tuning arrangement for receiving a plurality of signal channels and for tuning to a specific of said plurality of signal channels, the arrangement comprising:

a polyphase mixer for mixing said specific signal channel to an intermediate frequency which is lower than twice the bandwidth of the channel;

a polyphase IF filter for rejecting the negative frequencies in the mixer output signal; and

a polyphase group delay equalizer connected to the output of the polyphase IF filter;

wherein the transfer function of the polyphase group delay equalizer has, for the frequency range of interest, one or more pole-zero pairs alongside of only the positive imaginary axis of the complex frequency plane with the pole(s) and the zero(s) of said one or more pairs lying substantially symmetrically with respect to said positive imaginary axis, wherein the one or more pole-zero pairs are shifted along the positive imaginary axis off of the real axis of the complex frequency plane;

wherein said polyphase group delay equalizer comprises:

an in phase part; and

a quadrature phase part;

wherein each of said parts comprises:

a balanced operational amplifier;

first conductances and first capacitances connected in parallel between each output and the inverting input of the operational amplifier for constituting the pole in the complex frequency plane;

second conductances between each input of the part and one of the inputs of the operational amplifier and second capacitances between each input of the part and the other of the inputs of the operational amplifier for constituting the zero in the complex frequency plane; and

further conductances connecting the inputs of the operational amplifier of each part to the inputs and to the outputs of the other of said parts for shifting the pole and the zero along the positive imaginary axis of the complex frequency plane.

3. (previously presented) A tuning arrangement for receiving a plurality of signal channels and for tuning to a specific of said plurality of signal channels, the arrangement comprising:

a polyphase mixer for mixing said specific signal channel to an intermediate frequency which is lower than twice the bandwidth of the channel;

a polyphase IF filter for rejecting the negative frequencies in the mixer output signal; and

a cascade of polyphase group delay equalizers connected to the output of the polyphase IF filter;

wherein the transfer function of each of said polyphase group delay equalizers has, for the frequency range of interest, only one pole-zero pair alongside of only the positive imaginary axis of the complex frequency plane with the pole and the zero of said pole-zero pair lying substantially symmetrically with respect to said positive imaginary axis, wherein the pole-zero pair is shifted along the positive imaginary axis off of the real axis of the complex frequency plane.

4. (previously presented) A tuning arrangement as claimed in claim 3 wherein individual polyphase group delay equalizers within the cascade of polyphase group delay equalizers comprise different pole-zero patterns.

5. (previously presented) A tuning arrangement as claimed in claim 3 wherein individual polyphase group delay equalizers within the cascade of polyphase group delay equalizers comprise same pole-zero patterns.

6. (new) A tuning arrangement as claimed in claim 2 further comprising a cascade of polyphase group delay equalizers connected to the output of the polyphase IF filter, each of said polyphase group delay equalizers has, for the frequency range of interest, only one pole-zero pair alongside of only the positive imaginary axis of the complex frequency plane.

7. (new) A tuning arrangement as claimed in claim 6 wherein individual polyphase group delay equalizers within the cascade of polyphase group delay equalizers comprise different pole-zero patterns.

8. (new) A tuning arrangement as claimed in claim 6 wherein individual polyphase group delay equalizers within the cascade of polyphase group delay equalizers comprise same pole-zero patterns.